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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,935	12/07/2000	Susumu Takagi	188-84	9786

7590 07/14/2004

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EXAMINER

WACHTEL, ALEXIS A

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/731,935	Applicant(s) TAKAGI ET AL. JC	
	Examiner Alexis Wachtel	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3-31-04.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6-10,14-17 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-10,14-17 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Response to Amendment

1. Applicant's amendment and accompanying Remarks filed 3-31-04 have been entered and carefully considered.

The amendment is sufficient to overcome the obviousness rejections of claims 3-5, 11-13, 18, 20, 21 since said claims have been cancelled. The amendment is sufficient to overcome the obviousness rejections of claims 1, 2, 6-10, 14-17, 22-24 since the prior art as previously applied failed to teach the use of flat single filaments having W-shaped, ellipse, rectangle or hourglass cross-sections. Claim 25 has been added for consideration. Claims 1, 2, 6-10, 14-17, 22-25 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 6-10, 14-17, 22-25 rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,387,523 B2 to Bunyan et al in view of US 6,147,017 to Fastenau et al.

Bunyan et al teaches a flame retardant EMI shielding fabric having an electrically conductive first side and a conductive or non-conductive second side (Col 5, lines 40-45). The fabric can be made of polyester or nylon (Col 3, lines 48-51). The fabric is plated with silver, nickel silver or silver nickel over copper plating. The fabric can have a

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sqaure weave (Col 6, lines 5-7). The fibers of the fabric can be yarns made of plural filaments (Col 6, lines 9-15). The fabric is used as jacketing in a fabric over foam gasket construction. Fabric drapeability is described as desirable for the purpose of facilitating UL94 V-) compliant gaskets having complex profiles or narrow cross sections down to about 1mm. In addition the EMI shielding must be wear resistant and capable of withstanding repeated compression and relaxation cycles (Col 2, lines 5-7).

Bunyan et al as set forth above fails to teach that the EMI shielding fabric yarns are flat in shape, or that the filaments of the yarn are flat in shape as well.

Fastenau et al teaches a woven fabric wherein the warp and weft yarns are multifilament yarns (Fig.6). The filaments can have a hourglass side profile (Fig.11B). The filaments have an aspect ratio of about 2 to 6 (Col 2, lines 1-4). As best seen in Figs.2 and 3, the filaments (10) when arranged in a tile formation are more dense (have a smaller void area). Thusly filaments (10) when arranged per (Figs. 2 and 3) provide a yarn having an increased cover factor. The filaments can be made of either nylon 6,6 or polyetheylene terephthalate (Col 4, lines 8-17). In view of this teaching it would have been obvious to one of ordinary skill to have substituted the fabric disclosed by Fastenau for the fabric disclosed by Bunyan et al. One of ordinary skill would have been motivated by the desire to obtain an EMI shielding fabric having an improved cover factor.

In regards to claims 6,7 although Bunyan et al and Fastenau et al fails to teach the claimed flat ratio of the multifilament yarn, it would have been obvious to one of

ordinary skill to have optimized the strength and stability of the resultant EMI fabric by selecting the appropriate flat ratios through the process of routine experimentation.


Regarding claims 6,7,14,15, although the claimed surface occupancy ratio, cover factors and claimed EMI shielding performance is explicitly taught by Bunyan et al and Fastenau et al, it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. flat multi-filaments made of the claimed material coated with metal) and in the similar production steps (i.e. weaving fabric, then plating with metal) used to produce the EMI fabric. The burden is upon the Applicant to prove otherwise.

Examiner Comments

4. Applicant's Declaration fails to provide a showing of unexpected results and merely gives includes statements of biased opinion and are not given any weight at this time.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Wachtel whose telephone number is 571-272-1455. The examiner can normally be reached on 10:30am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenn Caldarola, can be reached at (571)-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Glenn Caldarola
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Technology Center 1700